

DOCUMENT RESUME

ED 042 143

AL 002 487

TITLE Analysis of Human Resource Development and Utilization in Nigeria, Summary and Conclusions.
INSTITUTION Education and World Affairs, New York, N.Y.
SPONS AGENCY Agency for International Development (Dept. of State), Washington, D.C.
PUB DATE May 67
NOTE 59p.; Report prepared for preliminary submission to USAID

EDRS PRICE EDRS Price MF-\$0.50 HC-\$3.05
DESCRIPTORS *Developing Nations, Economics, *Education, Educational Finance, Educational Policy, Educational Problems, Elementary Grades, *Human Resources, *Manpower Utilization, Secondary Grades, *Teacher Education, Technical Education, Universities
IDENTIFIERS *Nigeria

ABSTRACT

This report is a second synthesis of the observations and recommendations of the Education and Human Resource Development Committee's Nigerian Project Task Force, which have been in the process of formulation since early 1965. A summary report, this paper does not include substantiation of all points: it is meant to present an overview of the Task Force's observations, to support recommendations for AID's (Agency for International Development) program of assistance to Nigeria. The paper is also submitted in this preliminary form to promote a more intensive discussion of Nigerian human resource development and utilization within AID, between AID and the Nigerian Project Task Force, and between these groups and those Nigerians in policy-making positions. The first section of the report, "General Perspectives," discusses the concept of human resource development and utilization, the Nigerian economy and its divers sectors, and the spectacular progress and persistent problems. Section II discusses education-oriented institutions, training-oriented elements, and strategy for modern sector education and training. Sections III and IV deal with employment generation and education and training for the less-developed sectors. Concluding remarks in Section V point out the need to mobilize the nation's total resources for achievement of a more balanced pattern of development. (AMM)

F-AID

Education and World Affairs, 522 Fifth Avenue, New York, New York 10036. TN 7-9450

AL

ED042143

U.S. DEPARTMENT OF HEALTH, EDUCATION
& WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED
EXACTLY AS RECEIVED FROM THE PERSON OR
ORGANIZATION ORIGINATING IT. POINTS OF
VIEW OR OPINIONS STATED DO NOT NECES-
SARILY REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY

**ANALYSIS OF HUMAN RESOURCE DEVELOPMENT
AND UTILIZATION IN NIGERIA
SUMMARY AND CONCLUSIONS**

**Education and World Affairs
Committee on Education and Human Resource Development
Nigeria Project Task Force**

**Preliminary Submission
to the United States Agency for
International Development under
Contract AID/Afr - 285**

May 1967

AL 002 487

ED0 42143

Education and World Affairs
522 Fifth Avenue
New York, New York 10036

**ANALYSIS OF HUMAN RESOURCE DEVELOPMENT
AND UTILIZATION IN NIGERIA
SUMMARY AND CONCLUSIONS**

**Education and World Affairs
Committee on Education and Human Resource Development
Nigeria Project Task Force**

**Preliminary Submission
to the United States Agency for
International Development under
Contract AID/Afr - 285**

May 1967

FOREWORD

The following document is a second synthesis of the observations and recommendations of the EHRD Committee's Nigeria Project Task Force, which have been in the process of formulation since early 1965. As a summary report this paper cannot include substantiation of all points: it is meant to present an overview of the Task Force's observations, to support recommendations for AID's program of assistance to Nigeria. A more exhaustive treatment of these points will be possible in a final report, to be submitted to AID in September 1967.

This analysis also is submitted in its present form to promote a more intensive discussion of Nigerian human resource development and utilization within AID, between that agency and the Nigeria Project Task Force, and most important, between these groups and those Nigerians in policy-making positions.

Although the EHRD Committee, through its Task Force, has a contractual responsibility to AID, it is well aware of the responsibility to the Nigerians which it shares with AID through the latter's role as a major donor to the Nigerian development effort. The formulation and implementation of any Nigerian development strategy is, however, obviously a Nigerian responsibility.

There is need therefore to discuss fully with Nigerian officials the following observations and recommendations, and a need to build a consensus among interested parties on useful approaches towards solution of the problems identified. The Nigeria Project Task Force wishes to note its desire to participate in this important consensus-building exercise.

We wish to emphasize the tentative and fluid nature of the following recommendations. The development process, by its very nature, is fluid, and strategy must constantly be adjusted as needs change and as progress is made towards the achievement of goals.

This report is most directly the product of the Task Force, but it has benefitted greatly from review by members of the full Committee on Education and Human Resource Development.

Frederick Harbison, Chairman
Committee on Education and
Human Resource Development
Education and World Affairs

May 24, 1967

Members of the EHRD Committee Nigeria Project Task Force:

Frederick Harbison, (Chairman) Princeton University
George B. Baldwin, Economic Development Institute, IBRD
Karl W. Bigelow, Director, Afro-Anglo-American Program,
Teachers College, Columbia University
C.W. deKiewiet, Chairman, Overseas Liaison Committee, ACE
Eldon L. Johnson, Vice President, University of Illinois
Arthur J. Lewis, Teachers College, Columbia University
Eugene A. Staley, Stanford University

Project Staff:

Stephen F. Brumberg
Richard S. Sharpe
Charles N. Myers

TABLE OF CONTENTS

	<u>Page</u>
I. GENERAL PERSPECTIVES	1
A. <u>The Concept of Human Resource Development and Utilization</u>	1
B. <u>The Nigerian Economy and Its Diverse Sectors</u>	3
C. <u>Spectacular Progress and Persistent Problems</u>	5
II. EDUCATION AND TRAINING FOR THE MODERN SECTOR	6
A. <u>The Education-Oriented Institutions</u>	7
1. Overview	8
2. Problems of Educational Finance	11
3. Problems of Educational Orientation, Instruction, and Selection	16
a. Higher Education	16
The Problems	16
Policy Choices	19
b. Secondary Education	23
The Problems	23
Policy Choices	24
c. Primary Education	25
The Problems	25
Policy Choices	26
d. Teacher Supply and Training	27
The Problem	27
Policy Choices	29
e. The Question of Student Selection	30
B. <u>The Training-Oriented Elements</u>	32
1. Overview	33
2. Evaluation of Training in Relation to Modern Sector Employment Needs	34
3. Towards Improvement of the Training System	37
C. <u>Strategy for Modern Sector Education and Training</u>	41
III. EMPLOYMENT GENERATION: THE UTILIZATION OF HUMAN RESOURCES	43
IV. EDUCATION AND TRAINING FOR THE LESS-DEVELOPED SECTORS	47
A. <u>Urban Areas</u>	47
B. <u>Rural Areas</u>	48
V. CONCLUSION	53

I. GENERAL PERSPECTIVES

A. The Concept of Human Resource Development and Utilization

The wealth and vitality of nations rest ultimately upon the development of people and the effective commitment of their energies and talents. Capital and natural resources are passive agents. The active agents of modernization are human beings, for they alone can accumulate capital, exploit natural resources, and build political and social organizations. This report deals with the development and utilization of human agents - or human resources - in Nigeria, and it is concerned with description, evaluation, and strategy building, which may be relevant to other developing countries.

The development and utilization of human resources are - and should be - reciprocally related processes. Development means the enlargement of personal potential through the acquisition of beliefs, values, skills and knowledge. Such acquisition is the consequence of all kinds of experience, -- in the family and neighborhood, at church and school, on the job, and in all manner of social and political situations. The degree to which potential is developed may, of course, vary widely. Moreover, the character of the development may be more or less relevant to the opportunities that are, or may become, available for the utilization of achieved capacities. In planning for development,

therefore, both quantitative and qualitative considerations arise.

Utilization of human resources also has both quantitative and qualitative aspects. It is not just a matter of providing so many jobs for people, but of providing jobs that will enable them to do what they have become capable of doing. People who are unable to find work that enables them fully to employ the capacities that they have developed must be expected to be resentful -- and certainly the investment in the development of their capacities will have been wasted. The building of incentives is also an important aspect of utilization, since it can promote more effective deployment of the existing stock of trained manpower.

Thus, those charged with the responsibility of formulating a strategy of human resource development and utilization must constantly bear in mind both the potentials and aspirations of individuals and the prospective ability of a given society, in terms of its aspirations and potentials, to make use of such capacities as these individuals may, in due course, come to command.

This report, obviously, cannot deal with all of the processes of human resource development and utilization. It concentrates mainly on education, training, employment opportunities, and the building of incentives for useful and productive activity in a

modernizing society. It is concerned with the strategy of human resource development and utilization which, of course, must be closely related to the strategy of economic growth, but is by no means determined exclusively by economic criteria. In other words, the perspectives of human resource planning are considerably broader than those of economic planning for they must encompass social and political as well as economic development.

B. The Nigerian Economy and Its Diverse Sectors

Nigeria's economy is one of wide contrasts. At one extreme is a relatively small sector of high productivity and high income, often called the modern sector. At the other extreme is a very large sector of low productivity and low income (or subsistence). Between these, an intermediate sector of moderate size may be distinguished.

The modern sector includes the more productive enterprises, the government establishment, and government-supported services, such as education and health. It may be roughly equated with those places of employment enumerated in various government establishment surveys. About four percent of the labor force is employed in this sector, most of which is in the urban areas.

In the rural areas the low productivity sector consists mainly of subsistence farmers who have little or no dependence upon the monied economy. In the cities it comprises persons

underemployed in petty trade and casual labor and the unemployed. Probably over two-thirds of Nigeria's labor force is to be found in this sector, most of which is in the rural areas.

The intermediate sector in the rural areas includes persons in small-scale and part-time commercial agriculture or animal husbandry. In both the rural and urban areas it includes those engaged in small-scale service, industrial, construction and transport enterprises, traders, artisans and craftsmen, and small-scale miners. This intermediate sector is part of the monetary economy, but is distinguished from the modern sector by its far lower level of productivity.

The distinction among these three sectors is more like a gradient than a series of cliffs. The modern sector, however, is more clearly visible. In this sector incomes are growing; the rich are getting richer. In the others, per capita income levels are rising slowly, if at all. Thus the disparities between the rich and the poor are probably widening as a result of rapid growth rates in the modern sector, juxtaposed with the slower growth of the others.

For obvious reasons, the vast majority of ambitious Nigerians, and particularly those with some education, seek entry into the modern sector. Indeed, the formal educational system in Nigeria is geared almost exclusively to this sector. Its method, content, and value premises are all oriented in this direction. Where

formal education is provided, it is seen by Nigerian youngsters as an escape route from the low-productivity sectors to the modern. However, since employment in the modern sector is foreclosed for all but a few, formal education is likely to be a disturbing and frustrating force as well as a necessary process of human resource development for modernization.

C. Spectacular Progress and Persistent Problems

As is made clear in the following sections, Nigeria has achieved remarkable success in building a network of institutions and mechanisms by which to accelerate her human resource development. Few, if any, African countries can match her record of educational investment or accomplishments, even on a per capita basis.

Nigeria has put many of the products of her education and training system to good use. She has succeeded in utilizing Nigerians for all but about eight percent of her government's high and middle level established positions. Almost half the expatriates now in government are concentrated in the Northern Region. Eighty percent of the secondary school system's teachers and forty percent of university academic staffs are Nigerian.

Yet, like other newly developing countries with high aspirations, Nigeria has grave and baffling human resource problems. There are critical shortages of certain categories of middle and

high-level manpower. Unemployment and underutilization of manpower have reached alarming levels. The emphasis, content, methods, and levels of formal education are at points poorly geared to the country's needs, and thus much of the human and financial resources devoted to such education are wasted. Nigeria's institutions and capabilities for training and developing manpower already in employment outside the schools, are in many cases underutilized and underexploited.

The role of the external donor or investor is first, to understand Nigeria's problems and the strategies which might contribute to their solution, and second, to provide assistance which has the greatest possible multiplier effect in helping the country progress towards the solution and ultimate fulfillment of development objectives. This report, it is hoped, may help provide a more orderly and incisive assessment of this role.

II. EDUCATION AND TRAINING FOR THE MODERN SECTOR

The Nigerian system of human resource development may be usefully seen as having two centers of gravity or elements: education and training. Education has as its purpose the inculcation of knowledge and skills of general value for effective living in modern Nigeria and which are also essential as a basis for training in the various job skills required by the Nigerian economy.

Training is designed to develop such skills and thus produce productive members of the Nigerian society.

Education is primarily the task of formal educational institutions, though the individual's store of general knowledge and skills can certainly be increased by experience in other settings. Training may, to some degree, also be provided by schools, colleges, and universities, through technical, vocational, and professional instruction. However, the development of work skills also occurs on the job, and such development may be consciously and systematically facilitated.

At any time, in any society and with reference to any category of work skills, the question must always be faced as to how responsibility for training can best be divided between formal educational and training institutions and employers. This question will receive close attention in this report.

A. The Education-Oriented Institutions

Since Nigeria's schools, colleges and universities are the most important components of her modern sector-oriented education and training system, the greater part of the energies of the Nigeria Project Task Force has been devoted to understanding and evaluating these institutions as a basis for appraisal of alternative policies for strategy building. Our principal findings, observations, and impressions are summarized below. For purposes

of more orderly presentation, that part of the formal education system whose center of gravity is particularly towards a training function is analyzed separately as part of the more explicitly training-oriented elements of the education and training system. This distinction is more conceptual than real.

1. Overview

The network of Nigeria's formal educational institutions follows the familiar Western pattern of primary, secondary and tertiary levels, with heavy emphasis on general education. The major thrust of the school system is towards ever-higher levels of general education for the relatively small group of students who survive the selection process.

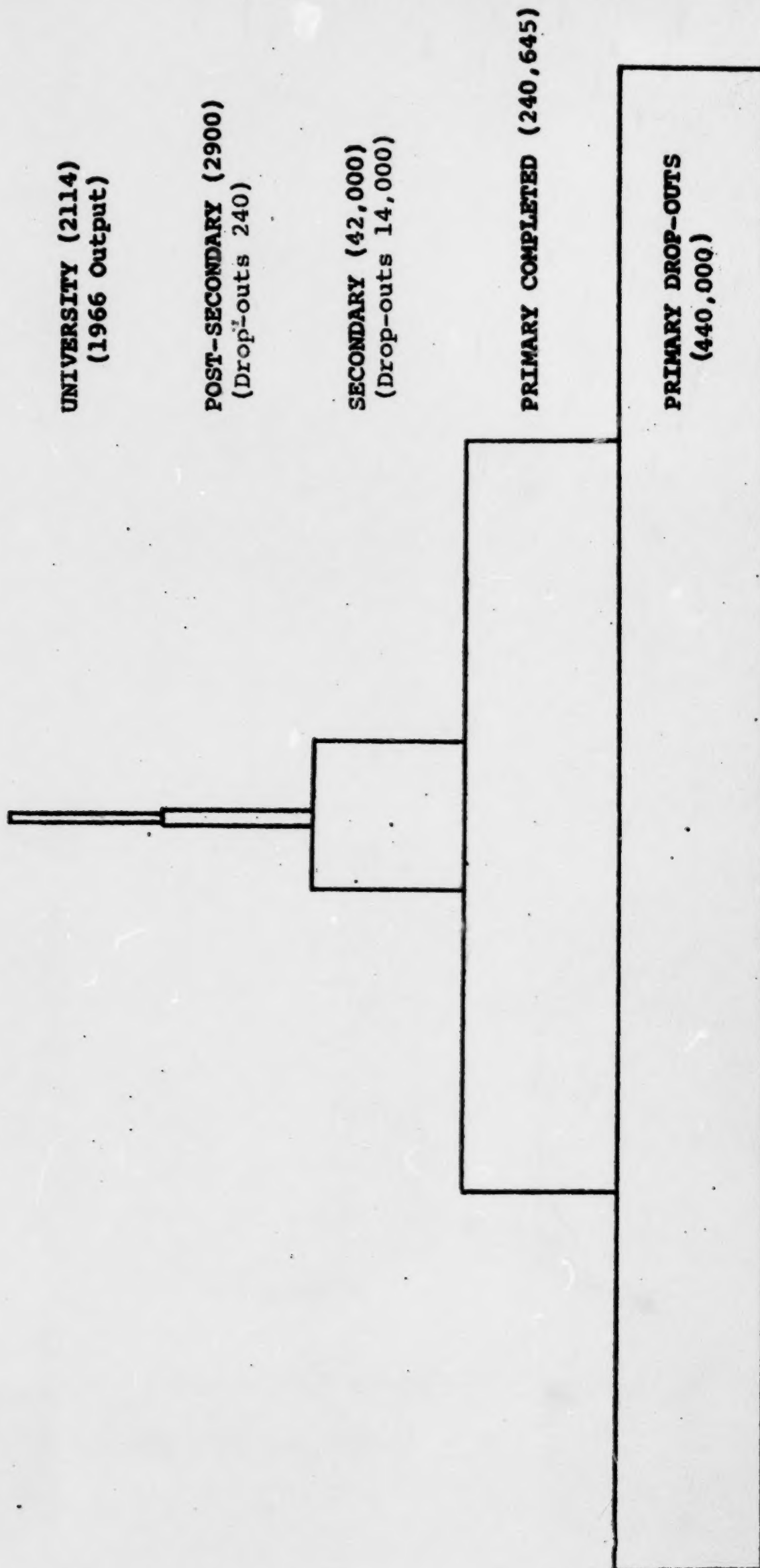
The growth of these institutions has been spectacular. Primary school enrollment increased from one to three million in the 1950's. By the late fifties, government emphasis was shifted to expansion of secondary level education. The terminal two-year post-primary secondary modern schools peaked in enrollment at 75,673 in 1962 before government reversed its policy and started phasing them out. The standard full secondary level institution, the grammar school, increased enrollment from 52,437 in 1960 to 132,975 in 1965. University enrollments have almost trebled from 2659 in 1960 to 7709 in 1966.

In 1965, the combined gross output of Nigeria's formal educational institutions was about 742,000 students, as is indicated on

the diagram on the following page. About 90% of this output was from the primary schools (680,000), comprised mostly of drop-outs (440,000). Of the total, secondary level output was approximately 56,000 more than half from secondary modern schools, and most of the remainder from the grammar schools. The post-secondary output (including that of technical and teacher-training institutions) reached about 3,000, almost two-thirds of which was from the sixth form. In 1966 Nigeria's universities graduated 2,114 students, while overseas universities turned out at least 2,418 Nigerian graduates.

The North, which is Nigeria's largest region in both population and area, lags far behind the rest of the country in formal educational development. It is estimated that less than eleven percent of school age children in the North attend primary schools, and there are only 15,000 secondary grammar school students. There are very few Northern university students. The shortage of educated manpower has brought reliance upon expensive expatriate high level manpower and, until recently, upon Southern middle-level manpower. The decline in inter-regional labor mobility brought about by political crisis exacerbates the critical Northern position. Also within the region itself there is a further geographic disparity among the dry Northern areas and the riverain and middle belt areas. Most of the Northern school enrollments are concentrated in the latter areas, leaving the

**OUTPUT OF NIGERIAN EDUCATIONAL INSTITUTIONS
(1965 Unless Otherwise Shown)**



dry North to rely principally on Koranic schools for education.

2. Problems of Educational Finance

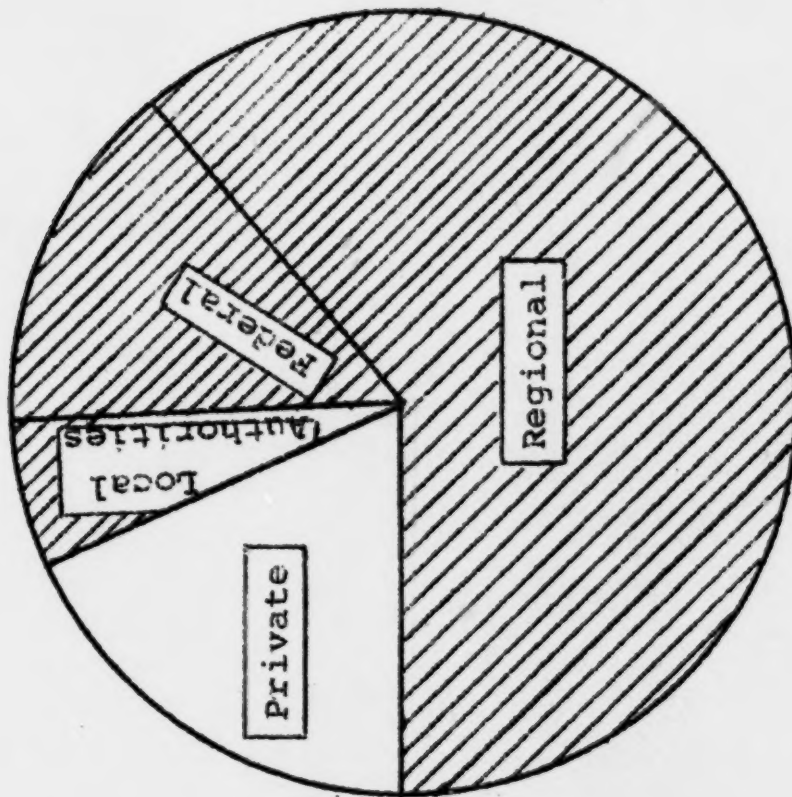
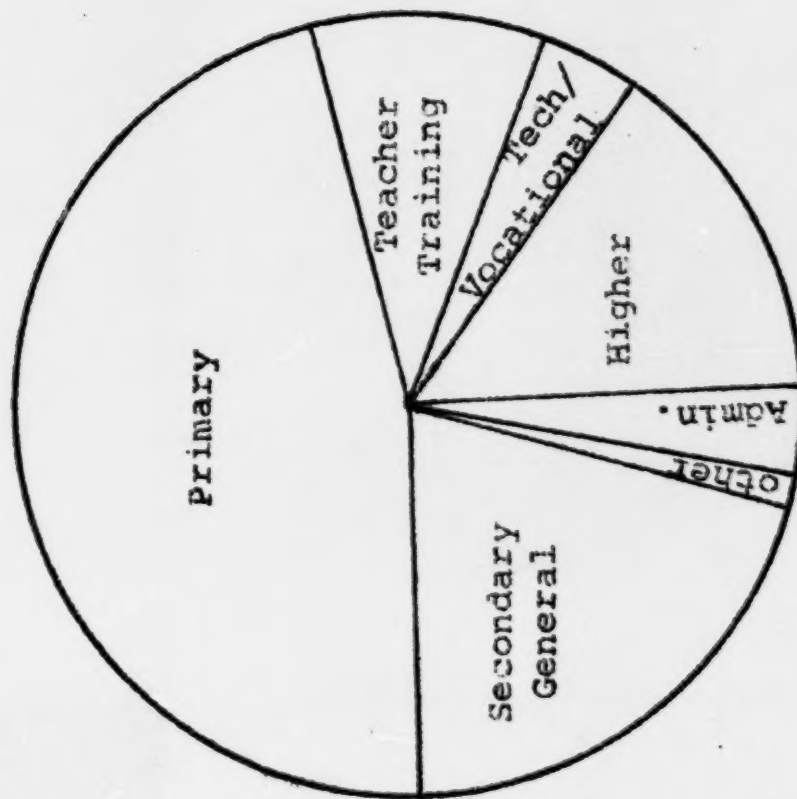
Expenditure of public monies in Nigeria on formal education has been increasing rapidly and has reached a remarkably high level. In 1952, £5 million was devoted to recurrent costs of such education, which represented about one percent of that year's gross domestic product. The annual compound growth rate of recurrent expenditure on education has consistently held at about 15% since 1952, as compared with a GDP annual growth rate of about 4%. By 1966, the total budgeted by the Federal and regional governments alone had risen to £41 million, which was over 3% of the GDP at that time and accounted for 21% of their recurrent expenditures.

The diagrams on the following page show the allocation of all domestically financed expenditure among educational levels and the sources of financing in 1962, the most recent year for which this information is available. In that year educational expenditure was divided as follows:

<u>Level</u>	<u>Percent of Educational Expenditure</u>
Primary	46.5%
Secondary (grammar and modern schools)	20.7
Higher (universities and scholarships)	15.2
Teacher education	9.8
Technical and vocational	3.6
Administration and other	4.2
	<u>100.0%</u>

DIAGRAM

DISTRIBUTION OF ESTIMATED TOTAL RECURRENT EXPENDITURE FROM INTERNAL SOURCES, 1962



DISTRIBUTION OF
RECURRENT EXPENDITURE BY TYPE OF EDUCATION

DISTRIBUTION OF
RECURRENT EXPENDITURE BY SOURCE OF FUNDS

(Based on data contained in "Financing of Education in Nigeria", by A. Callaway and A. Musone, mimeographed, Paris: International Institute for Educational Planning, December, 1966)



Public =



Private =

LEGEND

As shown in the diagram on the preceding page, the Federal and regional governments carried 76% of the total recurrent financial burden for the country's formal education system, followed by the private sector at 18%, and finally, local authorities (6%). These proportions varied according to educational level, with the heaviest government load carried at the primary and university levels (76% and 89% respectively).

The 1962 patterns of expenditure and financing have continued. The persistently heavy government financial burden is especially apparent. Federal and regional budgets for the 1966/67 fiscal year show an increase in educational recurrent expenditure over the previous year of about 15%. Capital expenditure on university education (40% of educational allocation in 1962-68 Development Plan) and on secondary, technical and teacher education (40%), will eventually entail further increase in recurrent costs, for which the Federal and regional government's share will be the largest.

Estimated unit costs by educational level are shown in the table on the following page. These are unnecessarily increased by (a) the predominance of small teaching units (e.g. average enrollment per primary school is 191, per secondary school is 155) and often by (b) underutilization of staff and facilities, particularly at the higher education level. The low student load of university teachers (e.g. average pupil:teacher ratio of 7:1) contributes

to a marginal cost far lower than average cost in most Nigerian universities. This differential indicates serious underutilization of facilities and staff, the cost of which is extremely high relative to the country's financial capacity and comparable cost levels in developed countries.

Average Annual Recurrent Cost Per Student
in Nigeria

<u>Level</u>	<u>Cost ₦</u>	<u>Index Numbers</u>
Primary	8	1.00
Secondary Grammar	100	12.50
Teacher Training	110	13.75
Technical and Vocational	185	23.25
Form VI	200	25.00
University	1,000	125.00

(Sources: Based on "A Statistical Appraisal of the Development Plan for Education", by Dr. A. Musone, UNESCO Advisor on Statistics, Federal Ministry of Education (1965), and Margaret Gentle, "The Sixth Form in Nigerian Secondary Schools", West African Journal of Education, Vol.IX, No.3, Oct.'65, p. 128)

This brief summary points to the Nigerian education system's two key financial problems. First, the financial burden for formal education is not equitably shared; while the potential of other sources goes relatively untapped, the government carries a heavy load, particularly at the primary and university levels. Second, small teaching units and underutilized facilities and staff contribute to inefficient operation of the formal education system.

Nigeria is faced with a situation where the resources available to education will become increasingly limited, as its

government must allocate resources among competing priorities. The solution need not be limited to either-or propositions, but involves phasing projects and redistributing financial responsibility among levels of government and between public and private sources. At the same time government must seek means to expand revenue and use its present funds more economically. To this end, the Nigerians may be forced to consider the following moves:

- a. Shift a larger part of the financial burden for primary education to local governments or to private sources;
- b. Shift a larger part of the financial burden for university education to students through loans;
- c. Shift the responsibility and/or financial burden for certain technical and vocational training to employers;
- d. Make greater use of costly underemployed university staff and facilities to support functions now performed outside universities (e.g. research and sixth form);
- e. Gain greater operating efficiency at the primary and secondary levels through promotion of larger school units.

In addition to the above moves, the disparities between the North and South and ultimate harmony between regions may call

for even greater financial assistance to Northern educational development by the Southerners. It does not appear that the North could catch up with the rest of the country without such assistance.

3. Problems of Educational Orientation, Instruction, and Selection

Policy choices for improving the Nigerian education system are constrained by the economic factors described above. Nevertheless, within those constraints there is freedom to deal with major problems of orientation, instruction and selection. These problems and the policy choices to which they point are analyzed according to educational level, except where problems, such as teaching quality and student selection, encompass all levels.

a. Higher Education

The Problems

Though the situation has been improving in recent years, Nigerian universities continue to be more responsive to the example of certain institutions of higher education in the United Kingdom and other Western countries than to national needs. The resulting over-emphasis on narrowly-conceived university education has widespread detrimental effects.

First, the universities too often tend to keep themselves outside the areas of governmental interest and activity; and yet, in countries such as Nigeria, the country's developmental efforts

are largely in those areas. Thus, the universities' activities may lie outside the developmental process. University facilities and staff are still not adequately utilized to support the heavily burdened government establishment -- the planner, organizer and implementer of the country's development programs -- through consultation, research, experimentation, or extension.

Second, the narrowly-conceived university education promotes a focus which perpetuates a narrowness and rigidity in sub-university education that is no longer appropriate in the context of the country's developmental needs. Most sub-university institutions focus on university preparation because of the strong drawing power of university matriculation on all students.

The extremely high costs of university operation, already noted, may climb even higher with the increasing tendency to offer post-graduate programs without careful planning and consideration of alternatives, need, or possible duplication. This tendency may perpetuate those problems of misused and under-used university resources which have plagued the expansion of undergraduate facilities. The expansion of undergraduate enrollments beyond planned levels and duplication of facilities continue to divert funds from priority development projects.

The higher education system may not be sufficiently related to manpower needs and absorptive capacity of the modern sector. Over half (56%) of the students in Nigerian universities in 1965/66 were in faculties of arts, education, law, and social

sciences, with the remaining 44% in faculties of natural science, medicine and pharmacy, technology, agriculture, forestry, and veterinary medicine. This may be an appropriate balance, but it must be emphasized that effective demand for those in the former group of faculties, at salary levels hitherto considered to be assured for degree-holders, is becoming satiated. High demand continues for those in the latter faculties because of serious manpower shortages. Although need for both categories of graduates exists, particularly in the education system, absorption of those in the first group will probably take place only at lower salary levels. The resulting situation of graduates employed at levels and salaries below their expectations may have serious political and social consequences. At the same time, positions requiring university education in the second group of faculties must go unfilled for lack of graduates.

The system used for determining admission to university through school leaving examinations, favoring those prepared in the sixth form, is now being seriously questioned in Nigeria.

The sixth form gives a university-preparatory bias to secondary schools, the great majority of whose pupils will have to go to work after completing fifth form. Its prestige makes those who do not gain admission feel that they are failures and competes with, and detracts from, other post-secondary institutions which are oriented towards filling critical manpower needs.

The sixth form is not able to perform its preparatory role effectively or equitably. Almost half its students who sit for the Higher School Certificate examination do not pass at a level sufficient for university admission. (Thus, many sixth form leavers must terminate their university-oriented education and seek employment without adequate preparation or orientation.) Also poor geographical distribution of sixth forms and lack of uniform quality create inequities.

Correspondence studies, an alternative to sixth form, are ineffective and wasteful. The scientific subjects most in demand by universities are not taken, because of inability to meet laboratory requirements. Course studies divert the attention of correspondents from their present jobs and entail relatively high expenditure. Results on examinations taken by correspondence students are generally poor; those who pass frequently require concessional study before gaining full admission to universities.

Policy Choices

Central to correction of most problems faced by the Nigerian universities is a broadened concept of university education, as part of a higher education complex. Within this complex, the university exists to serve the country's developmental, as well as cultural, needs as follows:

first, by preparing the high level manpower demanded by all sectors of the economy and necessary for political and social development;

second, by lending its prestige and resources to the preparation and up-grading of those who would not normally have access to university, particularly at the intermediate manpower level; and

third, by extending its scope to serve the development-oriented needs of government and the private sector through consultation, research, experimentation and extension.

Most of the Nigerian universities are moving towards this service orientation. The present need is for strengthening their capacity to implement new and on-going service programs.

Activities in continuing education and extension should be even further accelerated under the university "umbrella". Linkage with, or direct support of, the following programs should be encouraged through the university faculties indicated.

- teacher training colleges, particularly the advanced teacher training colleges (faculties and institutes of education)
- sub-professional technical training institutions (faculties of engineering)
- sub-professional agricultural institutions and extension services (faculties of agriculture)
- various in-service training programs in government and business, e.g. institutes of administration, small business development programs, etc. (faculties of public and business administration)

The above linkages could be detrimental to the non-university programs, if the more narrow orientation of the universities should persist. The degree of linkage should be phased in accordance with the evolution of university capacity to benefit such

programs. This capacity now appears to exist in the areas of education and agriculture. The general order of progression should begin with research, as the means by which university staff may gain insight to the problems faced and contribute to the action programs. Gradually other forms of linkage will evolve. The present distinction between universities and government research institutions is wasteful and perpetuates the narrowness of the former's orientation. Every effort should be made to bring about far closer association between the two.

Competing priorities and the urgent need for economy throughout the entire Nigerian educational system would seem to require a slowing of university enrollment expansion and abeyance in the creation of new universities; avoidance of duplicative specialized programs of study among the universities, when students could be as well and better served at less cost by concentration of programs on one or perhaps two campuses; limiting the offering of graduate-level instruction to fields of higher priority in terms of developmental and research needs (relying on available overseas graduate fellowships in other cases), and close attention to more efficient space utilization by all universities.

Continuing efforts to gear university faculty enrollments more closely to manpower needs and absorptive capacity are commendable. Further success in this direction, however, will depend to a large degree upon the adequacy of the prior preparation

of entrants at the secondary and post-secondary levels.

It may not be immediately possible to achieve a means for smooth absorption of those graduates whose areas of study are in less demand. Indeed, it seems desirable to lower inordinately high degree-based salaries and to destroy the notion that completion of a given level of education must guarantee a given salary level. A level of university output somewhat above absorptive capacity at present salary levels may serve priority manpower needs by lowering the pay of graduates, so that they may be afforded, for example, by the education system. This would call for increased output of university graduates who have specialized in the natural sciences to meet the need for science teachers.

The question of university admission criteria, specifically the future of the sixth form, calls for careful analysis and deliberation with special attention to issues both of economy and of educational effectiveness. The special commission on university admission, organized by the Nigerian vice chancellors, must weigh the merits of the present sixth form/correspondence study/examination system, the four-year university course (as used at the University of Nigeria); the university-linked preparatory institution (as proposed by Ahmadu Bello), and the multi-purpose preparatory/teacher training institution (as proposed by University of Ife). Of these, the present system appears to have least merit; the four year university appears to be desirable but

unacceptable to most Nigerian educators; and the university-linked institutions, perhaps initially coexisting with present sixth forms, may be the most effective and economic compromise.

b. Secondary Education

The Problems

The bias of the secondary grammar school towards preparation for higher education has neglected the needs of the majority of students who terminate at the secondary level. The result is to brand them as failures. Most course offerings are so highly academic as to disregard preparation for, and to alienate the student from, work at the middle level or training for intermediate level employment.

The system does not effectively fill even the needs of the higher educational levels, as illustrated by the results of the 1965 West African School Certificate Examination. Only sixty-five percent of those taking the examination passed, of whom only ten percent passed in Division I, twenty-one percent in II, and thirty-one percent in III. Examination results indicate that the system does not provide enough of the natural science instruction required either by higher educational levels or for employment. Of the 32,306 science examinations taken, over half are in health science and biology, which are not demanding and are popular among students with very little instruction in science.

Policy Choices

The gradual expansion of general secondary education must be accompanied by a greater employment orientation of content and structure to better serve the needs of the terminating student at both the lower and higher secondary levels, and thus to serve the country's need for middle level manpower.

Basic to this orientation is what might be called the Nigerian comprehensive secondary school system. This system, in its initial stages, should be conceived of as a limited comprehensive secondary school system since, until facilities can be built, admission must be geared to the most intelligent and able students, as determined by past record, aptitude and broad achievement tests. Thus, initially only the course offerings will be comprehensive.

Other distinguishing features of the Nigerian comprehensive secondary school system would be as follows:

- a two-year junior secondary school, (usually part of the senior secondary school) which provides an academic core for all students with emphasis upon remedial work in English and mathematics, and introduction to general science and pre-vocational pre-technical subjects;
- for those admitted from the junior secondary level, a three year senior secondary school which continues the pattern of academic core plus pre-vocational and pre-technical courses for all students; strong emphasis upon environmentally-oriented science, English and mathematics; provision of vocational counseling..

The degree to which such a system can be established will depend largely upon the supply and training of qualified teachers and administrators and provision of adequate facilities. Provision

of pre-vocational and pre-technical programs, as well as potential savings through economies of scale, call for the use of relatively large school units.

Steps have already been taken in the Western Region to establish such a system, and several possible variations are contemplated in the North. Elements of this system are accepted in principle in the East.

c. Primary Education

The Problems

There is gross inefficiency in the primary education system. Sixty-three percent of those pupils who entered the primary cycle which terminated in 1965 did not complete that cycle. Thirty-nine percent of those completing the cycle failed the primary school leaving examination. The quality of instruction at the primary level is notoriously poor.

In the Northern Region these problems are not so acute as the absolute lack of schools and teachers; only about 11% of the age group attends primary schools.

There is very little in the typical primary course which effectively relates the child to what will probably be his life-long environment in the less-developed sectors of Nigeria's economy. This is partially the fault of the curriculum, the purpose of which is to prepare the lucky few for higher educational levels. Most of the responsibility for the problem lies,

however, with inadequate teaching and teaching aids.

Policy Choices

There are some who say this inefficiency represents total waste of scarce resources. True, it may be wasteful, but progress has been made and from the many products of the inadequate system may come better teachers and others who will make possible improvement of the system.

Emphasis must be on continued efforts to improve the quality of instruction and to lessen wastage. The quality of instruction and the duration of the pupil's schooling must be at least sufficient for minimal educational benefit. In this regard, it may be useful to consider the duration of education in terms of three phases. The first would provide fundamental knowledge with functional literacy. The second would carry the student to working age, and the third would provide education for those able to continue beyond initial working age.

Efforts must continue to change the primary curriculum to better orient and prepare individuals for life and work outside the modern sector. Low cost, but adequate, teaching aids must be developed and widely distributed.

In the South, the above steps should take priority over further major expansion of primary enrollments. In the North, expansion must be geared to capacity to meet these requisites. (In both cases, expansion should be in the form of increasing

the size of the units, rather than creating new ones.) It should be emphasized that improved retention of students will entail higher total cost, even though the average (shadow) cost per student now completing the full primary course will decrease.

d. Teacher Supply and Training

The Problem

The expansion of the Nigerian education system has occurred so rapidly that it has not been possible to staff schools with qualified teachers. The shortage is currently most critical in the primary schools, as suggested by the fact that fewer than one-third of the teachers at this level hold the Grade II Certificate or higher qualification. The far better situation at the secondary level is largely accounted for by the presence of considerable numbers of expatriate teachers, but as secondary schools expand it is doubtful that the supply of such teachers can be correspondingly increased.

It is of critical importance that Nigeria's great need for more and better teachers should be met as soon and as well as possible, but this will be far from easy. To be sure, with increasing outputs from the secondary schools, post-secondary schools, and universities, the pools from which teachers might be drawn are getting steadily larger. Moreover, with the filling up of alternative jobs which the products of these institutions might prefer, a larger proportion may be expected to consider

teaching as a career. On the average, these people would be better qualified than the teachers now serving, whom they would join or perhaps replace. But it is, unfortunately, very doubtful that Nigeria could afford to employ them at the salaries now considered minimal for school-certificate holders, possessors of the Nigerian Certificate of Education, or university graduates.

As to the elements in Nigeria's system of teacher education the following statements may be made. The Grade II training colleges for primary teachers, which operate at the secondary level but do not prepare for the School Certificate, are in general weak, not least because of inferior staffing. There is a movement towards preparing School Certificate holders for primary school teaching which is educationally admirable but raises the cost-of-salaries problem referred to above. The Advanced Teacher Training Colleges -- offering three-year post-School Certificate programs, leading to the Nigerian Certificate of Education -- are well staffed, but their exclusive concern with preparation of teachers for the secondary schools and Grade II teacher colleges is open to question. The universities are doing a good job of preparing secondary-school teachers and-- some, at least -- of enabling experienced teachers to increase their competence. No institution is as yet providing adequately for the training of school administrators and other educational specialists.

Policy Choices

The future of the Nigerian education system will depend upon the success with which these problems are met. The overall labor supply/demand confrontation will determine the availability of potential teachers in conjunction with expanded educational output. There would appear to be a promising increase in the number of school leavers who might turn to teaching, now that the labor market conditions are likely to deny many of them the opportunity to work elsewhere.

The problem is one of financial scarcity, since present salary levels cannot be maintained. A possible solution may be a depression of actual salary levels brought about by competition for scarce employment. Thus, even now a university graduate with only a pass degree must resign himself to executive class employment with the government, at a lower salary than paid most graduates only a few years ago.

The need for improvement in the quality of teacher training colleges deserves priority attention. The wisest move may be to anticipate the increase in secondary school leavers and to plan teacher education around that manpower supply. This will entail the gradual shift to post-secondary training of primary teachers, probably a two-year course. Though the level of training may be post-secondary, competition for employment might make possible maintenance of the present Grade II pay level.

Attention must also be given to utilization of advanced teacher training colleges and universities for special training in educational administration and courses especially oriented to the needs of primary school leaders and teacher training college tutors. A program should be designed to move good practicing teachers at mid-career into the teacher training colleges as instructors.

The poor preparation of those now teaching in Nigerian schools must be remedied through intensified in-service training programs. Such programs will be effective only if they are well-coordinated and well-staffed and appropriate incentives are provided for those who make the effort to up-grade themselves.

Because of its critical importance, the development of teachers should be the major concern of the university-based institutes of education, which should play the central role in coordinating efforts to improve both pre-service and in-service teacher training in cooperation with ministries of education and teacher training colleges. The institutes must have more money and larger staffs if they are to meet this formidable challenge.

e. The Question of Student Selection

The question of student selection is complicated by the financial realities of Nigeria. The number of educational facilities in the country is now, and will continue to be, limited relative to the number of students who wish to utilize them. Thus,

the future of students cannot be decided simply by their choice; certain barriers or constraints must be used to control the selection and flow of students. Therefore, the assignment of students to any one educational program must be determined through a complex process ultimately dependent upon the following four conditions:

- 1) Motivation of the candidate: is he genuinely interested in the career(s) to which the given program might lead; is that interest realistic in terms of his abilities and aptitudes?
- 2) Preparation of the candidate: does he command the knowledge and skills basic for success in the given program?
- 3) Ability of the candidate to pay the costs of the program.
- 4) Ability of the candidate to surmount the other hurdles set by the authorities because of limitation of available places.

These factors will operate in different ways at various educational levels and will be affected by policies determining patterns of finance and expansion. The goal, however, is to maximize the opportunities for individual choice by gradually cutting barriers which limit the student's ability to determine his own future.

At the primary level, financial and geographic barriers will

determine access to education. At higher educational levels, selection procedures should be increasingly broadened to include achievement tests, aptitude tests and academic records. Fees must continue but there should be access to financial assistance for well-qualified candidates often on a loan basis. Provision of science instruction and pre-vocational and pre-technical courses for most students will help to eliminate the preparation barrier.

A broadening of the general education curriculum should make possible a wider range of choices for the student, both within the formal education system and in employment. This broadening of choice should be accompanied by better counseling of students to help them weigh alternative possibilities.

B. The Training-Oriented Elements

Elements of Nigeria's education and training system whose centers of gravity lean towards the training function include the specialized, training-oriented institutions within the formal education system, and the various mechanisms used for training in employment. The system described here is especially geared to modern sector needs, though some of its products may be found elsewhere.

1. Overview

Technical training at the skilled worker level¹ is provided in government trade centers and technical training schools, which in 1965 enrolled just over 2600. A few secondary grammar schools offer some technical training, and there is a growing number of private schools specializing in technical training at this level.

Commercial training at this level is provided in a few government commercial schools and in commercial streams of secondary grammar schools, but most is offered by private commercial schools.

Technical and some commercial training at the intermediate manpower level is provided through the five technical institutes located in the regions and Lagos. Their 1965 total enrollment, including both part-time and full-time students in junior and senior courses, was about 3100.

The bulk of occupational training for modern sector employment takes place outside the formal education system. Three types of in-employment training are utilized: on-the-job instruction and supervision, apprenticeship, and in-service courses. At times, employers also make use of the formal education system through

1

The skilled level includes craftsmen, artisans, clerks, typists and production process workers; intermediate level includes supervisory and junior administrative personnel and technicians; above these is the senior administrative/professional category.

sponsorship of employees as students. An adequate quantitative assessment of in-employment training has not yet been made; but according to preliminary findings of the 1965 Labour Requirements Survey, it is estimated that at least 10,000 modern sector employees are receiving some form of training other than on-the-job supervision. This number is far greater than the annual output of training-oriented formal educational institutions.

A number of employers, both government and private, have organized training leading to the City and Guilds of London Institute examinations at the intermediate and advanced levels. Only the larger private firms have highly developed training programs, however; smaller employers rely primarily upon on-the-job training and occasional sponsorship of students at technical institutes.

Government programs cover a wide range of forms. Many are served by a variety of institutionalized means, including institutes of administration, staff development centers, and clerical training schools.

2. Evaluation of Training in Relation to Modern Sector Employment Needs.

Two criticisms may be made of the performance of the training-oriented elements of Nigeria's education and training system in relation to modern sector employment needs. First, the system lacks the flexibility needed to meet and adjust to changing

labor demand. Second, the system relies too heavily upon formal educational institutions for provision of training, which is especially costly and often of questionable value to employment.

The training-oriented portion of Nigeria's formal education system has been planned on the basis of assumed manpower targets. Most of these targets have been set on the basis of relatively sophisticated analysis, though some have been set to rationalize political expediency. Planning on the basis of such targets creates problems, since actual labor demand may not match the targets to which the system is geared.

Manpower studies tend to confuse predicted future need with expected future demand for certain categories of skilled manpower (i.e. the absorptive capacity of the economy). But the one is not necessarily the same as the other. Manpower projections do not adequately take into account changes in labor demand caused by substitutibility between capital and labor and between high and lower levels of manpower. In addition, one would expect factor proportions to change as the relative cost of each factor changes. If, for example, increased labor absorption is a planning goal, changing factor proportions may be seen as both necessary and desirable. Further unreliability plagues the manpower plan due to inherent weakness of statistical and economic assumptions on which forecasts are based.

The desire to achieve targets set by the manpower planner moves the educator to chart paths of specialization within the education system for each of the various categories deemed needed by his colleague. Once the facilities for the production of these categories are built into the system, they may be assumed to be a permanent feature. For this reason, and because they usually entail long lead time for preparation of any given category, preparation of students by these facilities may continue long after effective demand for them is filled.

The point here is not that manpower analysis and target setting should be discarded. In fact, both are extremely useful in demonstrating the magnitude of apparent need and in relating that need to the necessity of preparing people with the required skills. Nevertheless, the methodology of manpower analysis and the data which it requires are imperfect and should not be too heavily relied upon. Furthermore, the specific gearing of educational output to targets set on the basis of imperfect manpower analysis may well lead to a mismatch between supply of educated manpower in specialized categories and actual labor demand of the employment system.

The process of setting manpower targets, leading to the tendency towards inclusion of specialized facilities in the education system has created in Nigeria a relatively uneconomic and ineffective system of education and training. The high

cost of formal technical education has been shown in an earlier section. According to employers, the occupational training provided by most formal educational institutions is inadequate in terms of absolute quality and of relevance to employer needs. The educational facilities already established are extremely difficult to staff with qualified teachers. Most important, not enough advantage is taken of the potential effectiveness, economy, and flexibility which could be realized through greater reliance upon employers for provision of training.

3. Towards Improvement of the Training System

In order to meet the manpower needs of Nigeria's modern sector more effectively and economically, a training system is needed that quantitatively, relies less on statistics and long range forecasts and more on signals² emanating from the day-to-day workings of the labor market, i.e., on the economy's capacity to absorb labor into productive employment.

By providing specialized skill training close to, or at the point of, employment either through in-employment training or through formal occupational training closely linked to employer demands, the supply and demand, both quantitatively and qualitatively, of trained manpower can be more easily regulated and

2

These signals include wage trends for specific occupations, employment experience of the graduates of vocational and other educational establishments, improved statistics on unemployment, and annual labor requirements and establishment surveys.

adjusted. Furthermore, preparatory lead time is reduced, wastage may be reduced, a person is more likely to work at the trade for which he is trained, and a school leaver has potentially broader job opportunities.

It can be assumed that sufficient numbers of students will graduate from primary schools who can enter some form of occupational training (although the degree to which they are "trainable" will depend on the quality of primary education). The number being trained will depend on the needs of employers. Sufficient numbers need to pass out of post-primary schools who can be trained for middle and higher level occupations (forecasts involving rough orders of magnitude can be used as a check against sufficient quantity; detailed occupational forecasts would not be required). The number needed in those occupations requiring higher levels of education (as in the professions) can probably be adequately gauged through short-term employer surveys (such as improved labor requirements surveys.)

To maximize flexibility and effectiveness formal educational institutions should be responsible primarily for general education (the production of "trainable" people) and the employment system for occupational skill training (for most occupations exclusive of the professions). The employer can conduct his own in-plant training or pay for utilizing formal educational institutions through an appropriate tax-credit scheme.

Based on the criteria of effectiveness and economy, formal educational institutions should be utilized for occupational training only when:

- a. Employers wish to utilize and pay for formal institutional training; e.g., when:
 - employers cannot carry out training to meet their own manpower needs (quantitatively or qualitatively);
 - the costs of preparation in the formal system can largely be met by the utilizing employers; and
 - quantitative and substantive demand for those so prepared can be readily ascertained with sufficient preparatory lead time.
 - formal institutional training is more effective and/or economic, e.g., when:
 - economies of scale can be gained;
 - an occupation serves a very wide audience and the training itself tends to be "bookish" (as in the case of clerical and sales occupations).
- b. There are no employers to do the job or accelerators are needed; e.g., when:
 - training is needed for anticipated new industries requiring new occupational skills;
 - it is necessary to train trainers, such as extension workers;
 - it is desirable to use the formal education system to correct imbalances in the labor supply/demand situation, e.g., when:
 - wages are artificially inflated due to shortages in certain occupations, or

- it is necessary to provide incentives to encourage the movement of people into priority occupations (by providing free or low cost training along with appropriate allowances);
- the quality of in-employment training available at present is low (in such cases attempts should also be made to improve the quality of in-employment training).

With the above exceptions, in-employment training should be relied upon wherever possible because:

- the cost of preparation is borne by the user;
- training can be more closely geared to actual work requirements;
- training output can be more accurately phased with demand;
- wastage may be reduced through emphasis on training of employed manpower; and
- public funds may be freed for provision of other services.

The shift of training responsibility to employers will require organizational moves by which an equitable tax-credit system could be administered and assistance provided to employers in establishing their own training schemes. The need of government ministries to upgrade their staffs should not be overlooked in this regard and will require strengthened in-service training.

Where public facilities are used at employer expense, their courses should be designed and administered in close cooperation with utilizing employers.

The implications for Nigeria's present training-oriented educational institutions include the phasing out of most skilled level training facilities, such as trade centers, where the training they provide can be better provided by employers themselves. Another possibility would be the use of such facilities to provide sandwich courses for employed workers to support employers' training schemes. Technical institutes and colleges would not be phased out, but would be better adapted to employer needs. This would entail provision of tailor-made courses to prepare skilled labor for supervisory and more technically-demanding positions.

C. Strategy for Modern Sector Education and Training

The immediate goal for the Nigerian education and training system is better utilization of existing resources. The ultimate goal goes beyond this to equitable provision of effective and economic education and training to all Nigerians. Both goals require improved planning and coordination between governmental units, to the degree politically possible.

Of highest priority among the various measures suggested above, are those which will make possible better utilization of existing resources. Without rationalization of present education and training expenditures and realization of increased revenues through shifts in the educational financial burden, further

progress towards the ultimate goal may be blocked. Among this list of highest priorities would be included all those suggestions made in discussing the problems of costs and financing and fuller utilization of university facilities to serve developmental needs.

Nigeria's teachers represent her most valuable, but costly, resource. Every possible step must be taken to raise their value to the level of their cost through further intensification of in-service training programs and through improved pre-service programs. Investment to this end will have the highest possible multiplier effect for the entire education and training system.

Next in any strategy for modern sector education and training must come steps to better orient formal education curricula and instruction to employment needs and to the realities of early educational termination for the mass of students. Success in this venture will largely depend upon the success in up-grading the quality of Nigeria's teachers. It will also require the services of professionally trained educational leaders and administrators both in government and in the universities. Most must be trained by the universities but initially many will be expatriates.

Finally, steps must be taken to improve, and make more equitable, selection processes, while at the same time working towards gradual expansion of facilities to accommodate the many Nigerians who now must go without either education or training.

III. EMPLOYMENT GENERATION: THE UTILIZATION OF HUMAN RESOURCES

For the most part, Nigeria's strategy of development has concentrated on building the modern or high-productivity sectors of the economy. It has stressed modern industrial development, communications and transportation, commercial agriculture, urban and main highway construction, and the building of government institutions and organizations. The country's system of higher education has been geared almost exclusively to meeting the demand for high-level manpower in the modern sector. The content, method, and emphasis of primary and secondary education has also been strongly oriented in the same direction. Quite naturally, therefore, the on-coming generations of educated people have high aspirations to participate in the modern sector.

At the most, however, the modern sector of Nigeria's economy employs about four percent of the country's labor force. As set forth in the Task Force discussion paper on Education, Training and Employment, employment in the modern sector is likely to expand at most at a rate of 2.5% per year, and indeed with the present emphasis on capital-intensive technology, the actual rate of increase may be much lower. The modern sector may be able to absorb at best about 40,000 new workers each year. On the supply side, there will be each year over 400,000 persons with some

education seeking entry into the modern sector. Nigeria's total labor force will probably expand by about 800,000 each year. This means that annually three-quarters of a million more people will have to survive in the country's low productivity or intermediate sectors. In other words, Nigeria's modern sector will have nothing to offer to ninety-five percent of the new entrants to the labor force.

The limits of modern sector absorptive capacity and the rapid population growth rate will mean that the proportion of Nigeria's labor force which works in the rural areas of the country will remain near the present level for many years to come. Thus, even by 1980 about 85 percent of Nigeria's labor force will probably be in the rural areas; 70 percent will probably continue to work in low-productivity agriculture.

The present inability of the Nigerian economy to utilize effectively its growing labor force is certainly the country's most serious human resource problem. From a political and social standpoint, the Nigerian government simply cannot sentence most of its population and ninety percent of its school leavers to subsistence levels of living. To raise young people's aspirations through education and then exclude them from participation in the processes of modernization is unthinkable.

Basically, solution of this dilemma can come only through gradual improvement of the life which must be faced by the

majority of Nigeria's citizens who remain in the intermediate and low-productivity sectors, most particularly in the rural areas. This improvement will require a massive effort to generate more productive employment within these sectors, with accompanying higher income levels. The success of such an effort will be severely hampered unless the present high rate of population growth can be dampened.

In the discussion paper on Education, Training, and Employment various measures for generating employment are analyzed in some detail. Great hope lies in promoting the growth of indigenous intermediate sector enterprise. But much of this growth must be linked to greater prosperity in the agricultural sector.

The necessity for retaining most of the labor force in the rural areas and the importance of agricultural prosperity point to Nigeria's urgent need for what might be called a "rural transformation". Such a transformation must improve rural living through an increase in income levels resulting from increased agricultural and agriculturally-related output.

An increase in rural income levels resulting from increased output can be brought about only through a combination of inputs. The key input must be improved agricultural techniques, but success will require far more, including agricultural extension, incentives, community development efforts, transportation, health and sanitation and educational programs.

It is important to stress that the rural transformation must be geared to the necessity for retaining the bulk of the labor force in the rural areas and the desirability of gradually improving rural life. Thus, every effort should be made to generate as much productive employment as possible in agriculture itself through utilization of capital-saving techniques to achieve increased output levels. To the degree that gradual increases in productivity are necessary in order to achieve desired output and earnings levels, displaced labor should be employed in rural-based occupations. The locus for such rural occupations may well be the small and intermediate-sized towns whose activities center around the servicing of the agricultural population.

More detailed analysis of the elements of this rural transformation is not possible on the basis of our present limited information on rural development processes. Indeed, the art or science of rural development is probably the most underdeveloped and backward area of knowledge in the entire field of growth economics.

Considering the urgency of the need, because of the limits of modern sector labor absorption and the disparities between urban and rural living, further investigation and intensive research are called for to support any successful Nigerian rural transformation effort.

Modern sector facilities and manpower must play the key role both in the investigation of rural needs and in the implementation of well-planned rural transformation programs. Thus, Nigeria's investment in the modern sector may be most fully justified to the degree that the sector's resources are applied to the solution of rural needs.

In spite of limited knowledge concerning the elements of rural transformation, it is necessary to at least suggest certain avenues of approach by which Nigeria could develop those human resources necessary for the improvement of life in the less-developed sectors.

IV. EDUCATION AND TRAINING FOR THE LESS-DEVELOPED SECTORS

A. Urban Areas

Human resource development in the less-developed sectors of Nigeria's urban areas could best be channeled through programs of technical assistance to small industry in the intermediate sector, which help to improve and support the managerial competence of Nigerian entrepreneurs and to improve apprenticeship and other on-the-job training in their enterprises. The present output of primary education in the cities should provide an abundance of literate persons, and the development of a pre-vocational curriculum in the secondary schools should result in the production of more

trainable young people for activities of this kind. But the greatest present deficiency and most urgent need is for assistance to those in employment, both the entrepreneurs and their workers.

Nigeria's universities could make a substantial contribution in this area through research on problems of intermediate sector enterprise and possibly through support of wide-ranging extension services. These should, at least, share priority with programs of business training for the larger enterprises in the modern sector, since the latter are already fairly well equipped to develop their own higher-level manpower.

B. Rural Areas

Even though our knowledge is inadequate, it seems clear that the limiting factor to the achievement of rural transformation in Nigeria is more likely to be human rather than financial resources, even though the latter investment will be substantial. Thus, the problem of developing the human agents needed to lead, manage, and direct this transformation must be given very high priority. Before adequate programs can be established to this end, however, steps must be taken immediately to determine the nature of human resource needs in Nigeria's rural areas, as a part of the broader research needed to plan and implement any successful rural transformation effort.

The planning of human resource development for rural needs might well center around research on the following broad queries:

First, what type of manpower is needed to assist in increasing agricultural output? Can the job best be done by the extension agent? If so, are the plans presented in the FAO Report, Agricultural Development in Nigeria, 1965-1980, feasible? What types of supportive personnel in research, experimentation and administration are needed for the extension service? The experience of the various government ministries and universities already engaged in extension and research should serve as a basis to answer these questions.

Second, what is the order of priority for provision of supportive "package" elements, such as health, education, rural works or other programs, and what type of manpower is necessary for their operation? When it comes to training community development workers, small-scale rural entrepreneurs, village leaders, and even rural school teachers, the requirements and needed programs are not yet known.

Manpower surveys, almost without exception, have ignored the problems of skilled manpower development for the rural economy. They have instead concentrated on high-level manpower requirements of the urban modern sector. It is time to pay far greater attention to the full range of manpower that will be needed for implementation of the rural transformation package. Research on both the type of manpower needed and programs for its preparation should be

undertaken by Nigeria's National Manpower Board in close cooperation with the country's universities and regional planning authorities.

The role of rural schools in promoting a rural transformation must be closely examined. At the present time such schools tend to drain the more talented and ambitious young people from the countryside to the cities. The content and method of education in the rural primary schools, as in other schools in the country, is academically oriented. The emphasis is on preparation for higher levels of formal schooling. Thus, the school environment is quite different from that of the rural community. Parents send their children to school, not to make them better farmers, but rather to provide for them an escape from traditional society. An educated child, therefore, has aspirations to move to "greener pastures"; he is no longer willing to accept a life-sentence to traditional agriculture. Under these circumstances, it is foolish to think that a solution can be found by "vocationalizing" the curriculum, -- i.e., teaching farming, handicrafts, etc. At the same time, it is rather unrealistic to assume that the spread of primary education will necessarily increase literacy in the rural areas. It may simply be an instrument for siphoning off the best talent to the urban areas.

Although the siphoning effect of formal education must be recognized, its existence does not necessarily call for curtailment

of formal education in the rural areas. It may be hoped that many of those who are educated will serve rural needs through modern sector employment. It may also be hoped that as the cities near their limits in absorbing educated manpower at present income levels, there will be spillage of that manpower into the rural areas.

Nevertheless, it may well be that the marginal value to rural development of further expanding formal education, particularly at the primary level, may be far less than that obtainable through diversion of funds to other mechanisms of human resource development more immediately and directly useful to the rural transformation effort. The critical decisions affecting Nigerian human resource development must be focused at this margin. What should be done with any marginal increment in funds? Should the present system of education and training be enlarged, or are there better alternatives by which rural needs could be served?

It may be that only gradual expansion of the primary school system in the rural areas should continue and that other educative services should accompany primary education. Such services might best be focused particularly upon the needs of those who will remain in the rural areas and should capitalize on the investment in those who have received formal education.

These educative services would have to be planned and implemented as an integral part of the total rural transformation package. For example, training without incentives may bring disappointing results. The range of such services may be broad

and might encompass transmittal of agricultural techniques, adult literacy, health and sanitation information, rudimentary business practices, and many other possibilities.

The point here is not so much to suggest the substance of educative services as to point out the urgent need to consider, through careful research, the best marginal use of funds for rural human resource development. Nigerian universities must play a key role in this effort.

V. CONCLUSION

Nigeria and its various governments have made tremendous progress in development of human resources since Independence. Education generally has been expanded beyond the expectations of 1960. University development has already exceeded the ambitious goals set forth by the Ashby Commission. Nigerianization of top positions in government and private enterprise has been rapid and extensive. These achievements have raised the aspirations of large segments of the Nigerian peoples and generated incentives for more rapid progress in the march of modernization.

Rapid progress, however, has uncovered imbalances in the systems for education, training and effective utilization of human resources. The education system is grossly distorted at critical points. The development of the lower levels of higher education has lagged seriously. The single-axis orientation of secondary education has overemphasized preparation for university entry at the expense of preparation of young people for a broader range of useful activities requiring middle-level manpower. In some categories, the universities are beginning to produce a surplus of graduates, relative to other categories of educated persons, at per-student costs which exceed those even in the most advanced countries. Also, the training capacities of major employing institutions have been underutilized. These deficiencies however, are widely recognized. Through careful

γ

planning and resource allocation, they can be corrected at least to satisfy the needs of the growing modern sectors of the economy.

Nevertheless, the preoccupation with development of human resources for participation in the modern sector has contributed to unemployment and poor utilization of human beings in the less-developed sectors of the economy. The needs of these sectors must now be given higher priority, and the resources of the modern sector used to fill those needs. This applies to general development as well as to strategy-building in the field of human resources. It will call for re-examination of social and economic goals as well as significant changes in the allocation of scarce human and financial resources. It would be a cruel deception to suggest, however, that significant development of these sectors could be achieved without a very substantial reduction in the rate of increase of population growth.

Thus, the task of the Nigerian planner is to mobilize the nation's total resources for achievement of a more balanced pattern of development. This requires concerted attack upon the problems of the less-developed sectors, which must be solved if there is to be any true sense of national accomplishment.

* * *